

## PEER-REVIEWED PUBLICATIONS:

Power, S., M. Lengaigne, **A. Capotondi**, et al., 2020: A review of decadal climate variability in the tropical Pacific: Characteristics, causes, predictability and prospects. *Science*, in review.

Meehl, G. A., J. H. Richter, H. Teng, **A. Capotondi**, et al., 2020: Initialized Earth system prediction from subseasonal to decadal timescales. *Nature Reviews Earth and Environment*, revised.

Xu, T., M. Newman, **A. Capotondi**, and E. Di Lorenzo, 2020: The Continuum of the Northeast Pacific Marine Heatwaves and their Relationship to the Tropical Pacific, *Geophys. Res. Lett.*, revised

Zeller, M., S. McGregor, E. van Sebille, and **A. Capotondi**, 2020: Subtropical-tropical pathways of spiciness anomalies and their impact on equatorial Pacific temperature. *Clim. Dyn.*, accepted.

Amaya, D., M. A. Alexander, **A. Capotondi**, C. Deser, K. Karnauskas, A. J. Miller, and N. Mantua, 2020: Are Long-Term Changes in Mixed Layer Depth Influencing North Pacific Marine Heatwaves?, *Bull. Amer. Meteor. Soc.*, accepted.

Fredriksen, H.-B., J. Berner, A. Subramanian and **A. Capotondi**, 2020: How Does El Niño Southern Oscillation Change under Global Warming – A First Look at CMIP6. *Geophys. Res. Lett.*, <https://doi.org/10.1029/2020GL090640>

**Capotondi**, A., C. Deser, A. S. Phillips, Y. Okumura, and S. M. Larson, 2020: ENSO and Pacific Decadal Variability in the Community Earth System Model version 2. *JAMES*, <https://doi.org/10.1029/2019MS002022>.

**Capotondi**, A., A. T. Wittenberg, J.-S. Kug, K. Takahashi, and M. McPhaden, 2020: ENSO Diversity. *AGU Monograph* “El Niño Southern Oscillation in a changing climate”, M. McPhaden, A. Santoso, and W. Cai Editors, <https://doi.org/10.1002/9781119548164.ch4>.

Guilyardi, E., **A. Capotondi**, M. Lengaigne, S. Thual, and A. T. Wittenberg, 2020: ENSO modelling: History, progress and challenges. *AGU Monograph* “El Niño Southern Oscillation in a changing climate”, M. McPhaden, A. Santoso, and W. Cai Editors, <https://doi.org/10.1002/9781119548164.ch9>

Jacox, M. G., M.A. Alexander, S. Siedlecki, K. Chen, Y.-O. Kwon, S. Brodie, I. Ortiz, D. Tommasi, M. Widlansky, D. Barrie, **A. Capotondi**, et al., 2020: Seasonal-to-interannual prediction of U.S. coastal marine ecosystems: Forecast methods, mechanisms of predictability, and priority developments. *Progress in Oceanography*, **183**, 102307.

Grothe, P.R., K.M. Cobb, G. Liguori, E. Di Lorenzo, **A. Capotondi**, et al., 2019: Enhanced El Niño Southern Oscillation variability in recent decades. *Geophys. Res. Lett.*, <https://doi.org/10.1029/2019GL083906>.

Carreric, A., B. Dewitte, W. Cai, **A. Capotondi**, K. Takahashi, S.-W. Yeh, G. Wang, and V. Guemas, 2019: Change in strong Eastern Pacific El Niño events dynamics in the warming climate. *Clim. Dyn.*, doi:10.1007/s00382-019-05036-0.

Hagos, S., G. R. Foltz, C. Zhang, E. Thompson, H. Seo, S. Chen, **A. Capotondi**, K. A. Reed, C. DeMott, and A. Protat, 2019: Atmospheric convection and air-sea interactions over the tropical oceans: Scientific progress, challenges and opportunities. *Bull. Amer. Meteor. Soc.*, doi:10.1175/BAMS-D-19-0261.1

**Capotondi, A.**, et al., 2019: Observational needs supporting marine ecosystems modeling and forecasting: From the global ocean to regional and coastal systems. *Front. Mar. Sci.*, **6**:623, doi:10.3389/fmars.2019.00623.

**Capotondi, A.**, P. D. Sardeshmukh, E. Di Lorenzo, A. Subramanian and A. J. Miller, 2019: Predictability of US West Coast ocean temperatures is not solely due to ENSO. *Nature Scientific Reports*, **9**, doi:10.1038/s41598-019-47400-4.

Cordero-Quiros, N., A. J. Miller, J. Luo, A. Subramanian, and **A. Capotondi**, 2019: Composite physical-biological El Niño and La Niña conditions in the California Current System in CESM1-POP2-BEC. *Ocean Modelling*, doi:10.1016/j.ocemod.2019.101439.

Bianucci, M., **A. Capotondi**, R. Mannella, and S. Merlini, 2018: Linear or nonlinear modeling for ENSO dynamics? *Atmosphere*, **9**, 435, doi:10.3390/atmos9110435.

Bianucci, M., **A. Capotondi**, S. Merlini, and R. Mannella, 2018: Estimate of the average timing for strong El Niño events using the Recharge Oscillator Model with a Multiplicative Perturbation. *Chaos*, **28**, doi:10.1063/1.5030413.

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**Capotondi, A.** and P. Sardeshmukh, 2017: Is El Niño *really* changing? *Geophys. Res. Lett.*, **44**, doi:10.1002/2017GL074515.

**Journal Highlights:** “This elegantly simple analysis shows that changes in key El Niño properties observed after the late 1970s, including the variance of surface and subsurface fields and the El Niño spectral characteristics, did not occur “by chance” but were linked to significant changes in the system dynamics as represented in the dominant structures associated with the evolution of El Niño events from their initial to mature stages.”

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**Capotondi, A.**, and co-Authors, 2015: Understanding ENSO Diversity. *Bull. Amer. Meteor. Soc.*, **96**, 921-938, doi:10.1175/BAMS-D-13-00117.1. **Hot paper** (top 0.1%) on Web of Science as of 3/13/2017.

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**Capotondi, A.**, and M. A. Alexander, 2010: Relationship between precipitation in the Great Plains of the United States and global SSTs: Insights from the IPCC-AR4 models, *J. Climate*, **23**, 2941-2958.

**Capotondi, A.**, 2010: ENSO ocean dynamics: Simulation by coupled general circulation models. In "Climate Dynamics: Why does climate vary?", AGU monograph Series, D.-Z. Sun and F. Bryan Editors, pp. 105-122.

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**Capotondi, A.**, V. Combes, A. A. Alexander, E. Di Lorenzo, and A. J. Miller, 2009: Low-frequency variability in the Gulf of Alaska from coarse and eddy-permitting ocean models, *J. Geophys. Res.*, **114**, C01017, doi:10.1029.

Guilyardi, E., A. Wittenberg, A. Fedorov, M. Collins, C. Wang, **A. Capotondi**, G. J. van Oldenborgh, and T. Stockdale, 2009: Understanding El Niño in ocean-atmosphere general circulation models: Progress and challenges. *Bull. Amer. Met. Soc.*, **90**, 325-340.

**Capotondi, A.**, 2008: Can the mean structure of the tropical pycnocline affect ENSO period in coupled climate models? *Ocean Modelling*, **20**, 157-169.

Alexander, M., **A. Capotondi**, A. Miller, F. Chai, R. Brodeur and C. Deser, 2008: Decadal variability in the Northeast Pacific in a physical-ecosystem model: The role of mixed layer depth and trophic interactions. *J. Geophys. Res. - Oceans*, **113**, C02017, doi:10.1029/2007JC004359

Trites, A., A. J. Miller, H. D. G. Mascner, M. A. Alexander, S. J. Bograd, J. A. Calder, A. **Capotondi**, K. O. Koyle, E. Di Lorenzo, B. P. Finney, L. Fritz, E. J. Greg, C. E. Grosch, S. R. Hare, G. L. Hunt, J. Jahncke, N. B. Kachel, H.-J. Kim, and C. Ladd, 2007: Bottom-up forcing and the decline of the steller sea lions in Alaska: Assessing the ocean-climate hypothesis. *Fisheries Oceanography*, **16**, 46-67.

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**Capotondi, A.**, M.A. Alexander, and C. Deser, 2003: Why are there Rossby wave maxima in the Pacific at 10°S and 13°N? *J. Phys. Oceanogr.*, **33**, 1549-1563.

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## INVITED ARTICLES (soft-reviewed)

Rykaczewski, R., and **Capotondi, A.**, 2020: Toward an integrated approach to understanding ecosystem predictability in the North Pacific. PICES Press, Vol. 28, N. 1, P. 51-53.

**Capotondi, A.**, K. B. Karnauskas, A. Miller, and A. Subramanian, 2017: ENSO diversity and its implications for US West Coast marine ecosystems. *US CLIVAR Variations*, **15**(1), 16-21.

**Capotondi, A.**, Y.-G. Ham, A. T. Wittenberg, and J.-S. Kug, 2015: Climate model biases and El Niño Southern Oscillation (ENSO) simulation. *US CLIVAR Variations*, **13**(1), 21-25.

**Capotondi, A.**, 2015: Atmospheric Science: Extreme La Niña events to increase. *Nature Climate Change*, **5** (2), 100-101. Note: News and Views, based on Cai, W., et al., *Nature Climate Change*, **5** (2), 132-137.